

**WHAT IS CLAIMED IS**

1. A topical composition, comprising:

substantially undifferentiated plant seed cells; and

a pharmaceutically or cosmetically acceptable vehicle.

2. The composition of claim 1, wherein the plant seed cells, when present in a culture medium, are present in an amount from about 0.0001 wt% to about 50 wt% of the total weight of the composition.

3. The composition of claim 1, wherein the plant seed cells, when present in a culture medium, are present in an amount from about 0.001 wt% to about 10 wt% of the total weight of the composition.

4. The composition of claim 1, wherein the plant seed cells, when present in a culture medium, are present in an amount from about 0.01 wt% to about 5 wt% of the total weight of the composition.

5. The composition of claim 1, wherein the plant seed cells, when present in a culture medium, are present in an amount from about 0.1 wt% to about 3 wt% of the total weight of the composition.

6. The composition of claim 1, wherein the plant seed cells are neem seed cells.

7. The composition of claim 6, wherein the neem seed

cells, when present in a culture medium, are present in an amount from about 0.001 wt% to about 10 wt% of the total weight of the composition.

8. The composition of claim 1, wherein the plant seed cells are derived from one or more of plants selected from the group consisting of *Ajuga reptans*, caraway, coconut, cumin, carrot, custard apple, cucumber, fennel, flax, grape, mangostine, pomegranate, perilla, sunflower and tomato.

9. The composition of claim 1, wherein the vehicle is one or more ingredients selected from the group consisting of water, C<sub>1-4</sub> alcohols, fatty alcohols, fatty ethers, fatty esters, polyols, glycols, vegetable oils, mineral oils, liposomes, laminar lipid materials, silicone oils, or any mixtures thereof.

10. The composition of claim 1, wherein the composition is in a product form selected from the group consisting of aerosol spray, cream, dispersion, foam, gel, lotion, mousse, ointment, powder, patch, pomade, solution, pump spray, stick, and towelette.

11. A topical composition, comprising substantially undifferentiated neem seed cells.

12. The composition of claim 11, wherein the neem seed cells, when present in a culture medium, are present in an amount from about 0.0001 wt% to about 50 wt% of the total weight of the composition.

13. A method of improving the aesthetic appearance of skin, comprising topically applying a composition having substantially undifferentiated plant seed cells and a pharmaceutically or cosmetically acceptable vehicle.

14. The method of claim 13, wherein the plant seed cells are neem seed cells.

15. The method of claim 13, wherein the plant seed cells, when present in a culture medium, are present in an amount from about 0.0001 wt% to about 50 wt% of the total weight of the composition.

16. The method of claim 13, wherein the plant seed cells, when present in a culture medium, are present in an amount from about 0.001 wt% to about 10 wt% of the total weight of the composition.

17. The method of claim 13, wherein the improvements are one or more improvements selected from the group consisting of reduction in dermatological signs of aging; reduction in skin fragility; reduction in pore size; prevention and/or reversal of loss of collagen and/or elastin; ameliorating the effects on skin of estrogen imbalance; prevention of skin atrophy; prevention and/or reduction in appearance and/or depth of lines and/or wrinkles; prevention, reduction and/or treatment of hyperpigmentation; improvement in skin tone, radiance, clarity and/or tautness; prevention, reduction, and/or amelioration of skin sagging; promotion of anti-oxidant activity; improvement in skin firmness and/or plumpness

and/or suppleness and/or softness; improvement in procollagen and/or collagen production; improvement in skin texture and/or promotion of retexturization; improvement in skin barrier repair and/or function; improvement in appearance of skin contours; restoration of skin luster and/or brightness; minimization of dermatological signs of fatigue and/or stress; resistance to environmental stress; replenishment of ingredients in the skin decreased by aging and/or menopause; improves communication among skin cells; increase in cell proliferation and/or multiplication; increase in skin cell metabolism decreased by aging and/or menopause; retardation of cellular aging; inhibition of enzymes in the skin that accelerate aging of skin cells; minimization of skin dryness and/or improvement in skin moisturization; minimization of skin discoloration, including dark eye circles; promotion and/or acceleration of cell turnover; enhancement of skin thickness; increase in skin elasticity and/or resiliency; and enhancement of exfoliation.

18. The method of claim 13, wherein the improvements are one or more improvements selected from the group consisting of reduction in dermatological signs of aging; prevention and/or reversal of loss of glycosaminoglycans, collagen and/or elastin; improvement in skin texture; prevention or reduction in appearance and/or depth of lines and/or wrinkles; decrease or prevention of cellulite formation; improvement in skin tone, clarity, and/or tautness; restoration of skin luster and/or brightness; and minimization of skin discoloration.

19. A method of improving the aesthetic appearance of

skin comprising topically applying a composition having substantially undifferentiated neem seed cells.

20. The method of claim 19, wherein the neem seed cells, when in a culture medium, are present in an amount from about 0.0001 to about 50 wt% of the total weight of the composition.

21. A method of enhancing the therapeutic efficacy of a topical composition for the skin, nail, lips and/or hair, comprising incorporating into the composition substantially undifferentiated plant seed cells.

22. The method of claim 21, wherein the plant seed cell is neem seed cell.

23. A method for enhancing the production of a pre-determined plant cell constituent, comprising

inducing substantially undifferentiated plant seed cells under conditions effective to elicit differentiation of the seed cells such that the concentration or production rate of the pre-determined plant cell constituent is enhanced.

24. A topical composition, comprising the differentiated seed cells of claim 23 and a cosmetically acceptable vehicle.